



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,022	04/02/2007	Matthias Lau	SGM - 101-A	1401
48980	7590	02/06/2009	EXAMINER	
YOUNG & BASILE, P.C.			GRANO, ERNESTO ARTURIO	
3001 WEST BIG BEAVER ROAD				
SUITE 624			ART UNIT	PAPER NUMBER
TROY, MI 48084			3728	
			NOTIFICATION DATE	DELIVERY MODE
			02/06/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@youngbasile.com  
audit@youngbasile.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/582,022	LAU, MATTHIAS	
	<b>Examiner</b>	<b>Art Unit</b>	
	ERNESTO A. GRANO	3728	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 April 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-29 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/27/2006</u> .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Drawings***

1. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

### ***Specification***

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Art Unit: 3728

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because line 3 is confusing and indefinite "deliver means to make it possible to check the state of said for materials", and improperly employs legal phraseology, "means" and "said". Correction is required. See MPEP § 608.01(b).

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

Art Unit: 3728

- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Art Unit: 3728

- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing: See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 2-7, 10-12, 14-21 and 24-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Beginning in claim 2, applicant refers to a “membrane or layer”, the difference between the two not being clear and definite, and rendering the claims employing their alternative use indefinite. A

membrane and layer would appear to be equivalent in scope, rendering their alternative use confusing.

In claim 9, line 2, "the same" is indefinite as to which antecedent is being referred to.

Claims 17, 21 and 24-25 recite the limitation "a sensitive membrane or layer ". There is insufficient antecedent basis for this limitation in the claim. It is unclear if the applicant is referring to the sensitive membrane or layer of claim 1 or another sensitive membrane or layer.

Claims 18-20 and 26-27 are dependent on rejected claims.

Claims 18 and 19 the plural "the protective layers" is inconsistent with claim 17 "at least one" and should be --at least one...--

#### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-16, 20-24, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Krumhar et al. (US 5,096,813).

In re claim 1, Krumhar et al. discloses a package for substances or mixtures of substances, characterized in that the package contains an optically sensitive element 10. (see figure 2)

In re claim 2, Krumhar et al. discloses wherein a sensitive membrane or layer is present on the sensitive element or is the sensitive element 10. (see column 4, lines 13-51)

In re claim 3, Krumhar et al. discloses wherein the membrane or layer is subject to specific layer thickness changes, scattered light changes, changes of optical refractive index, spectral changes. (see column 4, lines 13-51)

In re claim 4, Krumhar et al. discloses wherein the layer thickness changes **can be measured by the method of interferometry, surface plasmon resonance, spectroscopy.**

The determination of patentability in a product-by-process claim is based on the product itself, even though the claim may be limited and defined by the process. That is, the product in such a claim is unpatentable if it is the same as or obvious from the product of the prior art, even if the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985). A product-by-process limitation adds no patentable distinction to the claim, and is unpatentable if the claimed product is the same as a product of the prior art. (Same cite as above)

In re claim 5, Krumhar et al. discloses wherein the layer thickness change is effected dependently on one of oxygen concentration, hydrocarbon concentration,

hydrogen concentration, H<sub>2</sub>O content, and dependently on temperature or pressure.  
(see column 4, lines 13-51)

In re claim 6, Krumhar et al. discloses wherein the membrane or layer contains one or more dyes or selective markers.(see column 1, lines 55-68 and example 2)

In re claim 7, Krumhar et al. discloses state changes within the package are detectable by surface plasmon resonance, spectroscopy or luminescence changes on the membrane or layer. (see column 4, lines 13-51 and see examples)

In re claim 8, Krumhar et al. discloses wherein a marker or dye is changeable dependently on concentration (pH, O<sub>2</sub>) or dependently on temperature or pressure. (see column 5, lines 4-29)

In re claim 9, Krumhar et al. discloses wherein a detection is effected through the package without damaging the same. (see column 5, lines 4-29)

In re claim 10, Krumhar et al. discloses wherein the membrane or layer is applied directly to the inner side of the package. (see column 4, lines 52-58)

In re claim 11, Krumhar et al. discloses wherein the membrane or layer is inherently fixed to an adhesive film adapted to be bonded into the package. (see column 4, lines 52-58)

In re claim 12, Krumhar et al. discloses wherein the membrane or layer is connected to the package on or in a transparent element which is also fixable in a frame. (see column 4, lines 52-58)

In re claim 13, Krumhar et al. discloses wherein the sensitive element is inserted into the package. (see column 4, lines 52-58)

In re claim 14, Krumhar et al. discloses wherein a calibration of the sensitive layer or membrane **can be** effected upon closing by at least one of vacuum or excess pressure, supply of gas, supply of calibrating liquid. (see column 5, lines 55-59)

In re claim 15, Krumhar et al. discloses wherein a calibration of the sensitive layer or membrane **can be** effected by an external calibration before incorporation into the package. (see claim 4, *In re Thorpe*)

In re claim 16, Krumhar et al. discloses wherein an external calibrating module is adapted to be calibrated by pressure changes. (see claim 4, *In re Thorpe*)

In re claim 20, Krumhar et al. inherently discloses wherein the package is transparent to electromagnetic waves or has a window transparent to electromagnetic waves. (see column 4, lines 13-51)

In re claim 21, Krumhar et al. discloses wherein the membrane or layer indicates a fault or leak by color change without additional measuring technology. (see column 4, lines 13-51)

In re claim 22, Krumhar et al. discloses the sensitive element can detect multiparameters. (see column 4, lines 13-68)

In re claim 23, Krumhar et al. discloses wherein the multiparameters are dependent on concentration, pressure, moisture or temperature. (see column 4, lines 13-68)

In re claim 24, Krumhar et al. discloses wherein the sensitive membrane or layer has at least one piece of information applied thereto. (see column 8, lines 1-16)

In re claim 27, Krumhar et al. discloses wherein the information comprises calibrating data, batch information and identifications. (see column 8, lines 1-16)

10. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Iguchi et al. (US 6,232,128).

In re claim 1, Iguchi et al. discloses a package for substances or mixtures of substances, characterized in that the package contains an optically sensitive element 10. (see figure 1)

In re claim 2, Iguchi et al. discloses wherein a sensitive membrane or layer is present on the sensitive element or is the sensitive element 10. (see column 7, lines 20-33)

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krumhar et al. (US 5,096,813) as applied to claim 2 above in view of Prusik et al. (US 5,057,434).

In re claim 17, Krumhar et al. as applied to claim 2 above, discloses the claimed invention except for wherein the sensitive membrane or layer has at least one of an optical, mechanical and chemical protective layer applied thereto.

Prusik et al. teaches a primary indicator which develops a color change as a result of cumulative time-temperature exposure and a threshold second indicator for monitoring the conditions of a perishable product. (see figure 6 and column 9, lines 3-18)

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the sensitive membrane or layer of Krumhar et al. as applied to claim 2 above, with a transparent protective layer 61 as taught by Prusik et al. in order to help protect the sensitive membrane or layer.

In re claims 18 and 19, Krumhar et al. discloses the claimed invention except for permeable metal, dielectric, PTFE, PTFE-base synthetic resins, or acrylic layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a protective layer of any of the above materials in order to help protect the sensitive membrane or layer. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

13. Claims 25 -26 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krumhar et al. (US 5,096,813) as applied to claim 2 above in view of Hidaka et al. (US 6,879,264).

In re claim 25 -26 and 28-29, Krumhar et al. as applied to claim 2 above, discloses the claim invention except for wherein the sensitive membrane or layer has at least one radio frequency identification (RFID) chip applied thereto or thereon

Hidaka et al. teaches an article identifying system for allowing a user, especially a visually handicapped person to identify an article correctly. An article identifying system 1 comprises a RF tag which is prepared by sealing the RFID (Radio Frequency Identification) chip and a receiving antenna with a resin or glass, and is a microminiature communication terminal which is attached to an article to be identified by the user. (see paragraphs [0027-0028])

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the sensitive membrane or layer of Krumhar et al. as applied to claim 2 above, with a (Radio Frequency Identification) chip as taught by Prusik et al. in order to help identify the package.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bonnette et al. (US 2004/0188304), Bitsonis (US 2004/0134823), Pennaz (US 6,378, 906), Barmore et al. (US 7,368,153), Inoue et al. (US 5, 358,876), Rohowitz et al. (US 4,179,397), Yoshikawa et al. (US 4,169,811) all disclose a similar package including an indicator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERNESTO A. GRANO whose telephone number is (571)270-3927. The examiner can normally be reached on 7:00am - 4:00pm Mon.- Thur..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on 571-272-4562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bryon P. Gehman/  
Primary Examiner, Art Unit 3728

/Ernesto A Grano/  
Examiner  
Art Unit 3728

EAG